ECN NO. 2002-E-0003

~~☐ ENGINEERING CHANGE NOTICE REQUIRING YOUR DECISION~~
☒ SERVICE INFORMATION / INSTRUCTIONS

RANK ☐ SAFETY ☐ MANDATORY ☒ AS NEEDED ☐ REFERENCE

SUBJECT : **FCR XG-1CL/CR CL SOFTWARE VERSION A07 RELEASE**

DATE: Jan. 25, 2002 Dept.: *FUJI PHOTO FILM Co., Ltd*.

ORIGINATOR: T. SAITO APPROVED BY: *K. Kishimi*

PRODUCT NAME : CR-IR346CL,348CL PART NAME : SOFTWARE

********** DECISION FOR ENGINEERING CHANGE **********

ECN APPROVAL: ☐ YES ☐ NO APPROVED BY: Not Required DATE: _____

- - - - - - - - - - - - - - [USE FOR YOUR INTERNAL RECORD ONLY, IF NECESSARY] - - - - - - - - - - - - - -

ECN AUTHORIZATION: BOARD ACCEPTED _____ REJECTED _____ STATUS _____

CHAIRPERSON SIGNATURE _____

ECN BOARD COMMENTS :

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REASON FOR CHANGE :

The software version A07 for FCR XG-1CL and CR CL is released.
Some new functions are added and some errors are corrected.

DESCRIPTION OF CHANGE :

Function additions

- Markers embedment in image are supported.
- Image registered from ID-T741 and processed by 5000plus series is receivable.
- The manual EDR function is made available for 5000plus series.
- The new LCD (TPS9416TD15_2) is selectable from the Maintenance Utility.

Error corrections

- The image re-reception function is rendered operative when images are not successfully received from 5000plus series (while some studies are left incomplete).
- Provision is made against an error that may occur when images received from 5000plus series are decompressed (thumbnail creation failure error).
- An unexpected system shutdown operation is corrected (the order of displaying FUJIFILM icon pop-up menu is changed).

See the attached documents for details.

DOCUMENTS AFFECTED : NONE

ITEM NO.	AFFECTED DOCUMENTS	PRESENT REV	PRESENT DATE	NEW REV	EFFECTIVE DATE
1					
2					

AFFECTED ITEMS :

INTERCHANGEABILITY: N FUNCTIONALITY: Y INTERFACES: N PERFORMANCE SPEC.: N
STANDARDS AFFECTED : UL: N CSA: N IEC: N VDE: N FCC: N CDRH (HHS) : N

SIMULTANEOUS EFFECTIVITY REQUIRED : NONE
ITEMS :

PRODUCT NAME : CR-IR346CL,348CL DATE : Jan. 25, 2002

DETAILED INFORMATION / PROCEDURES :

SOFTWARE INSTALLATION PROCEDURE (A04, A05, or A06 to A07)

1. Boot up FCR XG-1CL or CR CL.
2. Confirm if there is no image list displayed on the Local Worklist, QA and Queue tabs.
3. Terminate CL application.
4. Insert A07 software (CD-ROM) into CD-ROM drive, the "IIP setup tool" starts.
5. Uninstall CL application software. (Select 5 and then remove "IIP")
6. Install CL application software. (Select 2)
7. If Built_in Console software is the version A03, uninstall Built_in Console software, and install Built_in Console software of the version A07. (Select 5 and then remove "Built_in Console", and select 4)

   NOTE:
   If Built_in Console software is the CL's version A03, the Automation error occurs at boot up.
8. Shut down CL and turn on CL.
9. Confirm that the software version A07-03 is seen on "Version Display" menu in "FIJIFILM".
10. Back up data with User Utility and Maintenance Utility.

See the attached documents for details.

Information for upgrade from version A00, A01, A02, and A03 is also described.

- APPLICABLE TO : CR-IR346CL #20001 to #20173,
  CR-IR348CL (FOR XG-1 and FOR 5000) #20001 to #20304
  CR-IR348CL (FOR 5000MA) #20001 to #20076 (last five digits)
- ESTIMATED WORK TIME : 0.5 HOURS
- SPECIAL TOOLS / INSTRUMENTS : ☒NO ☐YES
- PARTS UPPER INTERCHANGEABILITY : ☐NO ☒YES
- SUPPLY OF THE PARTS : ☐NO ☒YES
  IF YES, WHEN : At the same time with this ECN
  PARTS NAME / CODE : CR-IR346CL APPLICATION SOFTWARE / 114Y5342001A07 (CD-R)
  QUANTITY : 1pc / distributor
  ☒ FREE OF CHARGE ☐ WITH YOUR CHARGE
- RETURN OF THE REPLACED PARTS TO FUJI : ☒NO ☐YES
- RELEASE TIMING OF RELEVANT DOCUMENTS: NONE

ADDITIONAL INFORMATION / COMMENTS :

Important Notice:

After completing the upgrading to the version A07, do not restore the back up data of version A06 or earlier versions, because A07 is not interchangeable with earlier versions.

FCR XG-1CL/CR CL Software Version A07 Release

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1. Precautions/Preconditions

This new software release can be used to upgrade software versions A00, A01, A02, A03, A04, A05 and A06.

Before upgrading the software, make sure that no studies are left on the study queue, QA queue, or output queue.

After completion of the upgrade, back up the data with the User Utility and Maintenance Utility.

The data backed up with the User Utility cannot be restored unless version A02 or later is used. When the data backed up with the Maintenance Utility is to be restored, the applicable versions are limited (version A07 data can be restored but version A06 and earlier data cannot be restored).

2. Function Additions

	Item
1	Markers embedment in image are supported.
2	Image registered from ID-T741 and processed by 5000plus is receivable.
3	The manual EDR function is selectable for 5000plus series.
4	An additional MWM on-line search key is provided.
5	The exposure conditions to be transmitted to the X-Con can be clipped if they are out of range.
6	The new LUT (TPS 9416TD15_2) is selectable from the Maintenance Utility.

* For detailed function descriptions, see *Appendix (P10/13).*

3. Error Corrections

	Error Description	Corrected Description
(1) Image re-reception is achievable in the event of an image decompression error.	When an error occurred in an image input process (due, for instance, to a thumbnail creation failure), the communication data in the CL indicated that an image reception was completed. Therefore, even when an image left on 5000plus's hard disk was retransmitted, it could not be received.	The software is corrected so that the management data in the CL reverts to the state prevailing before image reception in the event of an image decompression error. Therefore, when an image is retransmitted from the image reader, it can be received and subjected to the subsequent processes. -> For the image retransmission procedure to be performed at the image reader, see under [**Image retransmission procedure to be performed in the event of an image input error**] (Page 9).
(2) A switch is made to Fuji's image decompression logic.	When a compressed image received from 5000plus series via a network was internally decompressed, a decompression error occasionally occurred.	The JPEG image decompression logic is changed from Dimple to Fuji's decompression logic, which has been favorably used in the HI-C series.
(3) Image input during initialization is supported.	When 5000plus failed to transmit an image for some reason, it retransmitted the image. However, if the CL was being initialized at the time of image retransmission, the CL received the image but occasionally deleted it as an error.	The network control startup timing is changed so that a transmitted image will not be received until the initialization process is about to end and that a received image will be subjected to subsequent processes.
(4) An improper system shutdown operation is corrected.	The pull-down menu appearing at the press of the FUJIFILM button displayed "Shutdown" at the uppermost position. Therefore, "Shutdown" was inadvertently selected from time to time.	The order in which pull-down menu items are listed at the press of the FUJIFILM button is changed as follows:
(5) Queue control is improved to provide against an output error.	If an error occurred during output, the associated patient was placed at the end of a queue. Therefore, the patient radiographed earliest had to wait.	The software is changed so that the order of queued outputs remains unchanged even when an output error occurs.

(6) Provision is made against a MAC address acquisition failure.	In some cases, network communication was normally effected even when a MAC address was not acquired. As a result, an illegal UID was output in situations where a MAC address was essential.	(1) The software is changed so that an acquired MAC address is saved in the registry. The MAC address value stored in the registry can therefore be used if the MAC address cannot be obtained from the OS. (2) To provide against situations where a MAC address cannot be obtained from the OS, the Maintenance utility incorporates a feature that prompts for a MAC address entry and saves it in the registry.
(7) An unregistered tag was transmitted in relation to FINP.	When FINP was used to distribute a replaced image, the 20 lines/mm tag was output.	The image resolution judgment process for image replacement is now corrected.
(8) Magnetic cards without a birth date entry could not be read.	An error occurred when an attempt was made to read magnetic cards that did not store a birth date.	The magnetic cards are now readable even when ten spaces are entered in the birth date field.
(9) Setup for automatic study termination.	If a study termination procedure was performed after an image was input in the background in situations where the environment was defined with the user utility so as to enable the automatic study termination option, only the Exposure came to an end. Therefore, if the automatic distribution option was enabled for PRINT only, the associated study remained on the QA queue. (If all attributes were to be distributed, nothing would remain on the QA queue.)	Even if a study termination procedure is performed after image input in the background, the study process terminates as far as the QA process is completed for study termination in accordance with the definition of the "operation to be performed at the press of the study button". If the study process terminates before completion of the QA process, the associated item remains on the QA queue. However, if all attributes are to be distributed in this situation, nothing remains on the QA queue as usual.
(10) The response to IP registration is improved.	When an IP registration procedure was performed with the barcode reader, it occasionally took a considerable amount of time for the on-screen menu to read "IP" subsequently to barcode recognition. When an image display process and barcode read process were simultaneously started, the image display process took precedence so that the response to IP registration was delayed.	Increased ease of operation is provided by lowering the priority level of the image display process and changing the control scheme to ensure that the barcode can be read during the image display process.
(11) A CL hangup occurred during a screen transition.	When a screen transition was made, the magnetic card reader control occasionally caused a hangup.	Since an exception may occur due to a memory allocation failure, the software is changed so that an error handling process is performed to achieve recovery in the event of a memory allocation failure.

(12) The performance is improved to avoid a delay that was caused when the magnetic card was not found.	To avoid a trouble, a one-second check was performed when a USB device (magnetic card reader or barcode reader) open error occurred. Therefore, whenever the USB device was found to be missing, the processing time was increased by 1 second. Since the device control process was performed whenever a window was opened, the menu registration process took a considerable amount of time.	The software is corrected so as to immediately complete the error check when the device is not found.
(13) The "21051" error message appeared in a work list reception process even when mapping setup was properly completed.	When SQ data having a length of 0 was transmitted in compliance with the DICOM protocol, the SQ data of (0032, 1064) was not acquired from the DDO and NULL returned. However, no check was performed to determine whether the data was acquired. Therefore, an exception occurred, causing the "21051" error.	An additional check will be performed when data is acquired from the DDO (for both the MWM and output).
(14) A local search could not properly be conducted in relation to the work list.	When a local search was conducted in relation to the work list, the display showed no matching data even if there were some matching data.	The search target column in the list was wrong. Although an item was added to the list for ProcUID changes, the search target column was left unchanged. Therefore, the search target column is now changed in accordance with the added item.
(15) The study process did not start when a barcode reading process was performed in relation to the work list.	The problem occurred when a padding process was performed. The system searched for a padded character string.	The software is changed so as to initiate a search after the target character string is padded as specified.
(16) An unknown error occurred when the system exited the monitor mode to start a new study during a study process.	An unknown error occurred if the system exited the monitor mode in situations where an ID was registered at the CR Console in the monitor mode.	The initial value of the internal variable for monitoring status management was not cleared. Therefore, the software is changed so as to clear the initial value.
(17) Many warnings concerning simultaneous image database opening remained.	When simultaneous attempts were made to open the same record, the associated warnings were entered in the event log. However, the efficiency of maintenance work was impaired because these warnings were logged in large numbers.	The software is changed so that no more warnings will be entered in the event log when simultaneous attempts are made to open the image database (13002).

4. Software Upgrade Procedure

Upgrade from software version A04/A05/A06 to software version A07 by performing the following steps.

CAUTION 1:

When you upgrade the software from a version earlier than A04-06, you must install a FRIS modules. For details, refer to ECN No. 346CL-0008 that concerns the release of version A04.

CAUTION 2:

When you upgrade the software from Version A00 (114Y5342001A00), A01β, or A02-01, you must choose "6)" after IIP deletion in Step 5 to delete the PEI driver.

CAUTION 3: [IMPORTANT]

When the CL was shipped with software version between A00 and A03, the CL's Version A03 Built_in Console might be installed. The CL's Version A03 Built_in Console is operative when the employed software version is A06 or earlier.
However, when the newly released software version is used, you must install the CL's Version A04 or later Built_in Console.
If the CL's Version A03 Built_in Console is in use, delete it after IIP deletion in Step 5 and then choose "4)" to install the Built_in Console.
If the newly released software version is used in conjunction with the CL's Version A03 Built_in Console, the system will not start up because an "Automation Error" occurs during initialization.

Note the Built_in Console supplied with the newly released software supports the 114Y5433005A08. The connection cannot be made if the employed built-in main unit control software version is old (refer to 5000plus series ECN No. 5501-0026 for the applicable combinations).

CAUTION 4:

The software upgrade and startup verification procedures must be carried out with the network cable connection made.

To provide against a MAC address acquisition failure as explained under error corrections (6), the network is checked during initialization.

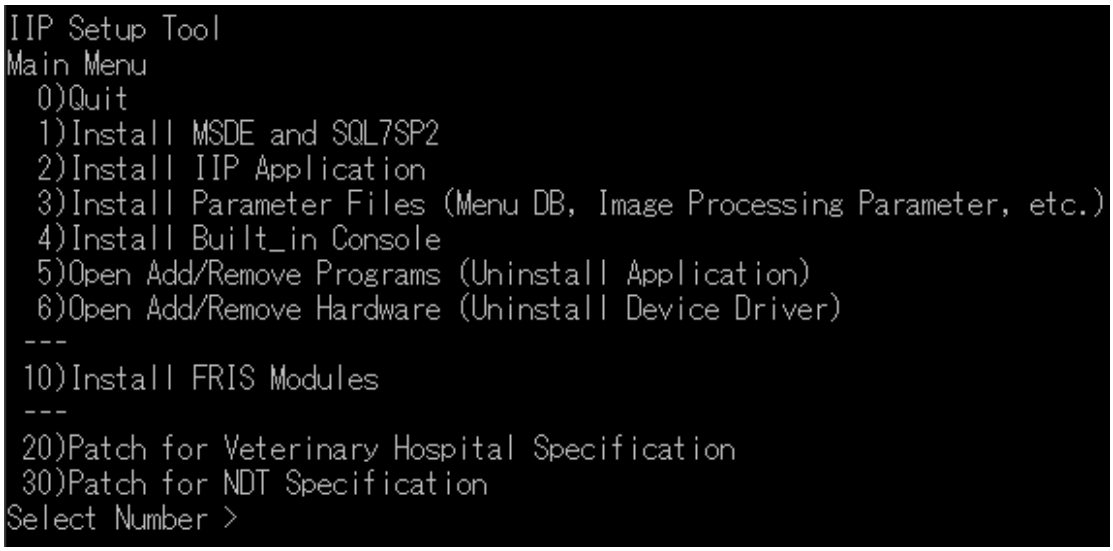
If the network connection is not established in the initialization process, the error message "[20110] Initialization Failed" appears because the MAC address is not entered in the registry.

(The MAC address can be viewed from the Config setup menu of the Maintenance utility. If all the values are 00, check the network connection and setup because the MAC address is not acquired.)

1. Start up the PC.
2. After completion of CL-AP initialization, note the study queue, QA queue, and output queue tabs to check that no studies are left.
   - Studies on the study queue must be completed or deleted.
   - For studies on the QA queue, QA must be completed.
   - Studies on the output queue must be output or the output queue must be deleted.

   ** If the software is upgraded while any study data is in a certain process, such study data cannot be continuously processed.*

3. Exit the CL-AP. (When you shut down the system while holding down the "Shift" key, only the CL-AP exits.)
4. Insert the A07(A07-03) CD-R into the CD-ROM drive. The installation then automatically starts and the following menu opens:



5. Choose 5) and remove CL Application.
6. Choose 2) and install CL Application.
7. If you do not want the new Fuji standard parameters to apply, do not choose 3). Simply choose 0) to quit and restart the PC.

   ** The settings and images will be automatically imported.*

If you want the new Fuji standard parameters to apply, choose 3).
The following menu then opens:

Select a locale number of English menu, either 2) or 3).
→ The new Fuji standard parameters are then copied.

Choose 0) to quit and restart the PC.

CAUTIONS:

1. ***When you and/or users have customized any item concerning the above menu, you will lose the changes that were locally customized using the User Utility. If you want to retain the current status, do not validate the new Fuji standard parameters. Skip this operation.***

2. ***Do not choose menu items other than 1), 2), and 3) because they are not supported yet.***

8. Shut down Windows and then turn OFF the power.

5. Checking Procedure

1. Start the PC. Verify that the application starts up normally.
2. Use the FUJIFILM button in the upper right corner of the screen or note the version number displayed at AP startup to verify that the installed software version is A07-03.

6. Operating Precautions

(1) Files backed up using the A00/A01 User Utility cannot be restored to version A07. After completion of the upgrade, you must therefore start the A07 User Utility to make a menu file backup. Files backed up with the A02/A03 and later User Utility can be restored.

(2) Maintenance Utility does not checkout compatibility of the files to be backed up and restored. Therefore, if you restore files having a different structure over different software versions, the software becomes inoperative. Note that the files of version A06 or earlier and the version A07 files are the case. You should not restore the version A06 or earlier files to version A07.

(3) “IIP Setup Tool” menu items 20) and 30) are strictly customized for veterinary hospitals and NDT, respectively. Never select these items because once they are set up they cannot be restored for normal medical purposes.

(4) When performing RU Multiple setup, set Image Modality 21 of "SYSTEM CONFIG" to N:N.
Further, ensure that the addresses of the RU units to be controlled by CL as their host are set for "NETWORK CONFIG" and "CONNECTING EQUIPMENT". Up to three READER addresses can be set up in one host CL.

For RU units that is controlled by the other CL, nothing needs to be set for "NETWORK CONFIG" or "CONNECTING EQUIPMENT" in the host CL in question.

For "IDT CONNECTING" of "CONFIG", be sure to set the host name and IP address of the local CL even when the system configuration contains only one CL unit.
Set "Attribute" to "IIP" and enter any group name, otherwise Error 31418 will occur when images are transferred from the RU.

For the CL and ID-T741 units that exchange ID information, "IDT CONNECTING" of "CONFIG" needs to be set up in the same manner as before.

(5) When using the film character extension function (English version only), choose "LongTypeFormat" and increase the length of each associated item in the printer-related configuration data.

(6) When the DRYPIX is to be connected, open NETWORK CONFIG DICOM print SCP setup screen and properly set the film size to be used: for the use of 8” x 10” and 26 x 36cm sizes by exchanging the film tray, check both 8” x 10” and 11” x 14”.

(7) When transferring image processing parameters from the CL to FCR550x, choose a selector that supports FCR550x at the transfer destination. If FCR550x selector is not chosen, FCR550x is placed in the "IP evacuation" state, which is not the "idle" state for FCR550x. Therefore, FCR550x does not receive image processing parameters.

(8) Notes on X-CON connection (precautions that particularly concern cassette exposures)
- In situations where the setup is defined for setting transmission from the CL to the X-CON, the default for the menu selected at the CL is transmitted when shots are taken (except when the settings are transmitted from the RIS).

  Be sure to select an exposure menu for "Shot" especially when a cassette-type machine is used.
- When actually used exposure condition values are received from the X-CON, they are stored as the information about the exposure menu selected for the "Shot" sequence.
  Therefore, if exposures are inadvertently made with a different menu, change the exposure menu from the exposure screen.
- When the X-CON transmits performance information in relation to a menu for a completed exposure (for which IP registration is completed), such information will not be stored.
  Be sure to take shots with an unregistered exposure menu selected, and then complete IP registration.
  (For cassette-type exposures, X-rays must be shot before IP registration from the study execution screen as is the case with built-in type exposures.)

(9) Make sure that at least one node is set as "THIS HOST (IIP)" under NETWORK CONFIG. If no node is defined, an error occurs during initialization. To avoid such an error, retain PRINT-SCU, which is set by default, or enter another setting.
Exercise due care when only XG1-RU, local printer, and FINP outputs are to be generated.

7. Image Retransmission Procedure to be Performed in the Event of an Image Input Error

* As regards 5000plus's SYSTEM Config setting 44, ensure that ID_DST = 1.

(1) When an image input error occurs, place the affected study in the "Exposure Suspended" state or "Inspection in Progress" state.

CAUTION:
The image will not be received if the affected study is placed in the "Exposure/QA Completed" state or deleted.

(2) Start 5000plus's user utility (choose the drawer icon displayed at the lower right corner of the screen).

(3) Choose the "REOUTPUT IMAGE" button.

(4) Select the image affected by the error.

(5) Specify the distribution code by entering the code setting for the CL (the setting for the CL's "CSL/IDT FUNCTION 53: Distribution Code for FCR5000plus series").

(6) Press the "OK" button.

(7) Press the "QUIT" button to exit the image reoutput mode.

(8) Press the "QUIT" button to exit 5000plus's user utility.

(9) The image will be transmitted after a while (within about a minute). Subsequently, you can resume the study process to continue processing.
(If you resume the study process before image transmission, an error occurs.)

CAUTION:
If "Display" is selected as the CL setting for 5000plus's EQUIPMENT, you do not have to set ID_DST to 1 or perform Step (5) (for specifying the distribution code by entering the code setting for the CL). Image transmission can be initiated simply by pressing the "Adjustment Completed" button.

Appendix

1. Using the marker input function and creating markers

Using the marker input function

Item	Description
Startup	(1) When you open the study internal QA or study list QA image process tab and press button at the bottom of the screen, the marker input dialog box opens.
Entering a marker	(1) In the marker list display area, click a desired marker (the color of the clicked marker changes to purple). (2) When you click the mouse on the image, a rectangular outline appears. (3) Drag the mouse to a desired position and then release the mouse button. A marker is then displayed at a position at which you released the mouse button. (In this instance, the on-screen marker remains selected.)
Selecting a marker	(1) When you click a marker over the image, four points appear at the four corners of the marker to indicate that the marker is selected. (The four vertexes may not be readily visible depending on the screen brightness of the marker area.) (2) When you click the selected on-screen marker again, it is deselected (and the four vertexes disappear). (3) When you click a marker that is not selected, the previously selected marker becomes deselected and the clicked marker becomes selected.
Moving a marker	(1) Click an on-screen marker (the selection marks then appear at the four corners of the marker). When you click the mouse on a destination area in this state, a rectangular outline appears. (2) When you drag the mouse to a desired position and then release the mouse button, a marker appears at a position at which you released the mouse button. (In this instance, the on-screen marker remains selected.) * You can also move the on-screen marker by dragging and dropping it in Step (1). * You cannot place the marker in areas other than the image area.
Deleting a selected marker	(1) Click an on-screen marker to select it (this procedure need not be performed if the marker is already selected). The selected marker is deleted when you press button in the marker dialog box.
Deleting all markers	(1) Pressing button in the marker dialog box deletes all the markers from the image.
Changing the direction of rotation/flipping	(1) Click an on-screen marker to select it (this procedure need not be performed if the marker is already selected). When you press a rotate/flip button (Flip Horizontal, Flip Vertical, or Rotate 90° CCW) in the marker dialog box, the selected marker rotates/flips in a specified direction.

Changing the text/background color	(1) Click an on-screen marker to select it (this procedure need not be performed if the marker is already selected). When you press a text/background color change button (White on Black, Black on White, White on Clear, or Black on Clear) in the marker dialog box, the text and background colors of the selected marker change as specified.
Limitation	(1) Up to four markers can be entered per image. If an attempt is made to enter the fifth marker, an error message appears.
Other	(1) When an image with marker entries is transmitted to an external device, the entered markers are embedded in the image when the CL performs the final image process. Therefore, the ways of marker appearance and artifact generation at a destination device vary depending on whether the employed output image is based on an FINP image output, a DICOM-processed image output, or a DICOM-Unstandarized image output. (2) The on-screen markers look differently at the QA-WS. One reason is that the QA-WS differs from CL in display resolution. Another reason is that the QA-WS furnishes two different bitmaps (one is for image embedment and the other is for list display) whereas the CL uses only one bitmap for display and image embedment in consideration of ease of servicing. Note, however, that the QA-WS and CL do not differ in the BMP data to be embedded in the image.

Creating markers

By default, the CL AP offers 83 different markers that are presumably most frequently used. However, some institutions might want to use special markers. Some other institutions might want to hide unnecessary markers. To meet such demands, the CL AP allows the service technician to create or delete markers as desired. The marker creation/deletion procedure is described below:

Item	Description
BMP definition	One pixel of a BMP image is defined as a 0.1 mm square. That is, a 100 pixel x 100 pixel bitmap is equal in size to 10 mm x 10 mm lead marker in the cassette.
Furnished BMP data	By default, all the bitmap characters installed upon CL installation are 10 mm in height.
Means of marker creation	Markers are to be created with "Paint", which is a standard application supplied with Windows 2000.
Supported marker sizes	50 pixels x 50 pixels to 1000 pixels x 300 pixels. * From the "Image" menu of Paint, choose "Attributes". In the "Attributes" dialog box, choose "Pixels" from the "Units" area and then enter the Width and Height values within the above range.
Marker format	Monochrome bitmap. The white on-screen area of Paint corresponds to the background color. The black on-screen area of Paint corresponds to the text color. * From the "Image" menu of Paint, choose "Attributes". In the "Attributes" dialog box, choose "Black and white" from the "Colors" area.

File name	The name of a created marker must consist of an alphanumeric character string with the extension ".bmp". * When the markers are listed on screen, they are arranged in the same order as they are sorted by file name.
Number of settable markers	Number of preset markers by default + number of created markers ≦ 128. In other words, the number of bitmaps stored in the MarkerBmp folder is not allowed to exceed 128.
Storage location	Created BMP data are to be stored in the C:\Program Files\FujiFilm\CL\MarkerBmp folder.
BMP deletion	If some markers are not needed for marker function execution, delete them from the above-mentioned storage folder (move them to the Recycle Bin). Markers deleted in this manner no longer appear in the marker list display area. If some markers are not frequently used but might be used sometime in the future, you should not delete them but move them to the Desktop or a dedicated directory.
Version upgrade	When the CL software is upgraded, the contents of the above-mentioned folder are retained as they are. Therefore, the BMP data created by the service technician will not be deleted even when the software is upgraded. If markers installed in the initial installation process are deleted, they will not be restored even when the software upgrade is installed.

2. Receiving an image that was registered at ID-T741 and read by 5000plus Series

The basic function of the CR CL is to process the images on the IPs that are registered with the CR CL. However, a new function is added so that the CR CL can operate in the same manner as for the IPs registered at the CR CL when the IPs registered at ID-T741 are read by 5000plus series.

1. 5000plus's ID information inquiry destination is the CR CL. The CR CL and ID-T741 must be set to share the ID information. (IDT CONNECTING – CONFIG)

2. When an IP registered at ID-T741 is read by 5000plus, 5000plus asks the CR CL about the ID information.

3. Since the CR CL does not have the associated ID information, it accesses the IDT that shares the ID information with the CR CL, and searches for the ID information.

4. When the associated ID information is found as a result of a search, the CR CL acquires it from ID-T741 and registers it with itself. Subsequently, the CR CL exchanges data with 5000plus in a normal sequence.

"One-image one-study" data is registered with the CR CL (multi-frame image data is also handled as "one-image one-study" data). As regards the StudyInstanceUID, the numbers issued by ID-T741 are used as they are.

3. Rendering the manual EDR function exercisable at 5000plus Series

The manual EDR is now selectable as an exposure menu parameter. Note, however, that the following limitations are imposed on editable items when the manual EDR function is exercised at 5000plus:

1. Distribution code setup

   If the distribution code is changed in situations where it has been used to define the operation style for image transfer from 5000plus to the CR CL, the subsequent image transfer operations will not normally be performed in relation to 5000plus.

   Therefore, do not change the distribution code at 5000plus. (It is recommended that you hide the distribution code change button by setting 5000plus's Config setup ID_DST to 0. However, when using the image retransmission function in the event of an error, set ID_DST to 1 and exercise care not to change the distribution code.)

2. Filing mode

   Even if the filing mode is changed at 5000plus, such a change will not be reflected after image reception by the CR CL. The value used for menu registration at the CR CL will be adopted. (It is recommended that you disable the filing mode change function by setting 5000plus's Config setup IDFILING to 0.)

3. Image lock

   The image lock function can be exercised in relation to 5000plus's hard disk only. To lock CR CL images to prevent accidental erasure, it is necessary to perform the image lock procedure after image reception by the CR CL.

4. MWM on-line search key extension

In the MWM patient on-line mode, only an accession number was previously used as a search key. However, the software is changed so that a patient ID can also be used as a search key. The same user interface is to be used, as in the patient information on-line Type B mode, to effect a search key changeover between accession number and patient ID.

5. Function for aborting a transfer when exposure condition data to be sent to the X-Con are out of range

When exposure condition data is to be transferred, the tube voltage, tube current, and irradiation time are checked. If any exposure condition value is outside the range of the Config setup minimum value to maximum value, it is clipped to the minimum or maximum before exposure condition transfer.

6. Newly added LUT type (TPS 9416TD15_2)

The LUT for the new LCD (TPS 9416TD_2) is added and now selectable in the LUT mode of the Maintenance Utility.